Customer No. 24498
Attorney Docket No. PF020112
Advisory Action Date: 09/02/2009

Remarks/Arguments

Claims 1 – 7 and 9 are pending in the application. Claims 1 and 9 are independent.

In the present response, claims 1 – 7 and 9 are amended for formal reasons: to present the claims in better form for consideration. No new matter is believed to be added. It is respectfully requested the claim amendment be entered.

Rejection of claims 1 – 3, 6 and 9 under 35 U.S.C. 103(a) over Ichikawa et al. ("Frame Transfer Protocol with Shortcut between Wireless Bridges"), hereinafter "Ichikawa", in view of Hart ("Extending the IEEE 802.1 MAC Bridge Standard to Remote Bridges") and Mahajan et al. (US Pat. 6,628,624), hereinafter "Mahajan"

Applicants submit that for at least the reasons discussed below claims 1 – 3, 6 and 9 are patentable over Ichikawa, Hart and Mahajan, either singly or in combination.

For example, amended claim 1, in part, requires

"determining for each bridge portal the number of ports adapted to connect other wireless devices;

electing the bridge portal with the greatest number of such ports as parent portal, and

connecting the other bridge portals to the ports of the elected parent portal."

In the final Office Action, page 3, it is conceded by the Office that Ichikawa does not disclose a root (parent) election procedure that is based on the number of ports of a bridge.

The Office also cited Hart, which discloses a root election process where the bridge with the most bridge ports is elected as the root. However, the root of Hart is different from the parent portal in the claimed invention. According to the 802.1D standard, the spanning tree protocol defines the root bridge being the bridge at the highest level in the topology. The other bridges in the topology are <u>not</u> all connected to the ports of the root bridge. In contrast, the claimed invention

requires the connecting the other bridge portals to the ports of the elected parent portal.

Hart indicates that the bridge having the most ports is elected as the root. However, Hart does not indicate that the bridge having the most wireless ports is elected as the root. Furthermore, this is not a piecemeal analysis as suggested on page 6 of the final Office Action. Hart may suggest to one of ordinary skill the electing a root bridge based on a number of wired bridge ports and Ichikawa may suggest wireless ports. In combining the teachings of Hart and Ichikawa, a skilled person must necessarily consider both the wired ports as well as the wireless ports as these ports are respectively disclosed in Hart and Ichikawa. However neither reference suggests a bridge having the most wireless ports elected as the root. Since there are wired ports and wireless ports, combining Ishikawa to Hart would only lead a skilled person to elect the portal having the most ports (wired and wireless) as the root portal.

Applicants submit that without specific teaching of electing the parent portal based on the number of wireless ports, a skilled person would not be able to combine Ishikawa and Hart to arrive at the claimed invention without the benefit of the impermissible hindsight.

In the final Office Action, page 3, the Office alleged that from Fig. 6 of Ichikawa, any difference in the number of ports among the APs is based on the number of wireless ports. However, even if AP-5 of figure 6 has a different number of ports, most APs (e.g. AP-1 to AP-4) of Ichikawa have the same number of ports. Therefore, there is no reason to rely on the number of wireless ports to prioritize the APs of Ichikawa, because that process would not help to differentiate between AP-1 to AP-4 of Ishikawa. Thus, based on the combined teaching of Ichikawa and Hart, a skilled person would not elect the root portal based only on the number of wireless ports, because in Ichikawa, AP-1 to AP-4 all have the same number of wireless ports. Hart would suggest electing the portal having the most wired ports as the root portal, which would not suggest the claimed invention.

Moreover, Applicants submit that the root portal of the combination of Ichikawa and Hart would be a root according to the 802.1D. This would conduct a spanning tree topology such as indicated in Fig. 1 of Hart with wireless APs acting as bridges. However, this would not be equivalent to the topology of the claimed

invention where the other bridge portals are connected to the ports of the elected parent portal. One ordinarily skilled in the art would not be motivated to combine Hart and Ichikawa since the resulting combination would not be equivalent to the topology of the claimed invention and would not have yielded predictable results.

The Office also cited Mahajan, which discloses that administratively disabled ports are excluded from the spanning tree. However, Applicants submit that Mahajan fails to cure the defects found in Ichikawa and Hart as applied to claim 1 as discussed above, because Mahajan only discloses disabled ports in the spanning tree, it does not disclose the election of parent portal based on the number of wireless ports.

In view of at least the foregoing reasons, Applicants submit that claim 1 is patentable over Ichikawa, Hart and Mahajan, either singly or in combination.

Similarly, independent claim 9, in part, requires:

> *"said microprocessor means being adapted to participate in a parent portal election process among bridge portals which is a function of the number of ports on the wireless interfaces of portal devices of the wireless bridge."*

Similar to the arguments set forth above for claim 1, Applicants submit that nothing in Ichikawa, Hart and Mahajan discloses electing the parent portal based on the number of wireless ports. Therefore, for at least the above reasons, claim 9 is patentable over Ichikawa, Hart and Mahajan.

Claims 2, 3 and 6 depend from claim 1 and inherit all the features of claim 1. Thus, claims 2, 3 and 6 are patentable for at least the reason that they depend from claim 1, with each claim containing further distinguishing features not found in the cited combination of references.

Withdrawal of the rejection of claims 1 – 3, 6 and 9 under 35 U.S.C. 103(a) is respectfully requested.

Rejection of claim 4 under 35 U.S.C. 103(a) over Ichikawa in view of Hart and Mahajan, and further in view of IEEE Standard 802.1w

Rejection of claim 5 under 35 U.S.C. 103(a) over Ichikawa in view of Hart, Mahajan and IEEE Standard 802.1w, and further in view of Moriya (US Pg Pub 2002/0027887)

Rejection of claim 7 under 35 U.S.C. 103(a) over Ichikawa in view of Hart and Mahajan, and further in view of Meier (WO 95/12942)

Applicants submit that none of the secondary references cited above can cure the defects pointed out above with respect to the combination of Ichikawa, Hart and Mahajan as applied to claim 1. Claims 4, 5 and 7 depend from claim 1 and inherit all the features of claim 1. Applicants essentially repeat the above arguments from claim 1 and apply them to each dependent claim. Thus, claims 4, 5 and 7 are patentable for at least the reason that they depend from claim 1, with each claim containing further distinguishing features not found in the combination of references. Withdrawal of the rejection of claims 4, 5 and 7 under 35 U.S.C. 103(a) is respectfully requested.

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Conclusion

Having fully addressed the Examiner's rejections it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the Applicants' attorney at (609) 734-6815, so that a mutually convenient date and time for a telephonic interview may be scheduled.

Respectfully submitted,

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